

REMARKS

Reconsideration of this application, as amended, is requested.

Claims 1, 2, 4-9, 15 and 16 remain under consideration in this application. Claims 3 and 5 have been cancelled. Claims 10-14 are withdrawn as being directed to non-elected subject matter. Claims 1, 2 and 4- 9 have been amended to eliminate the numeric references that were in the original claims. Numeric references are not required under U.S. patent law and are given no patentable weight. Accordingly, the elimination of numeric references is not a narrowing amendment entered for purposes of patentability. Claim 1 also has been amended to incorporate the limitations that had been in claim 3 and to further define the relative position of the wall of the housing for contacting the mating connector. This aspect of the invention is disclosed in the first few lines of page 9 of the specification. New claims 15 and 16 have been added.

The Examiner raised a few formal objections to claims 6-9.

Claims 6-9 have been amended to address the objections raised in the office action.

Claims 1, 3, 4, 6, 7 and 9 were rejected under 35 USC 102(b) as being anticipated by Horchler. The Examiner identified elements of Horchler that were considered to correspond to the elements in the original claims.

The Horchler connector includes terminals 10, each of which is of substantially uniform rectangular cross-section along its length. The connector of Horchler also includes an axial insulative member 22 formed with parallel planar top and bottom surfaces 24 and 26. The top and bottom surfaces have parallel grooves 44 and 46 that are dimensioned to closely receive portions of the terminals 10 therein. Axial plastic walls

48 and 50 are defined adjacent the grooves and include narrow extensions 52 and 54 for holding the terminals 10 in the respective grooves. The axial plastic walls 48 and 50 also are formed with latches 56 for holding the plastic insulative member 22 in a housing 66. Horschler provides virtually no explanation of how this retention is achieved. However, it appears from the figures that the plastic latches 56 and 64 of the insulative member 22 are received in correspondingly configured notches in the housing 66, e.g., the notch depicted in FIG. 5 between the numerals 68 and 70. FIGS. 6 and 7 of Horschler show the latches 56 and 64 substantially filling the unnumbered notches. The Examiner will appreciate that both the axial insulative member 22 and the housing 66 are formed from plastic and will yield as the insulative member 22 is inserted into the housing 66. This sliding movement of these two plastic members relative to one another is not likely to abrade either of the members significantly. Hence Horschler would not be motivated to design the front end of the housing 66 and/or the latches 56 and 64 in a manner that would leave a chip-receiving recess. Such a recess would detract from the secure retention of insulative member 22 relative to the housing 66. The Examiner also will appreciate that the terminals 10 are offset laterally from the plastic latches 56 and 64 which are formed on the walls 48 and 50 between the respective grooves 44 and 46. No parts of the terminals 10 are dimensioned to bite into the slot 68 in the housing 66.

In contrast to Horschler, the invention defined by amended claim 1 and its dependent claims 4, 6, 7 and 9 includes a receptacle with "a wall aligned substantially normal to the inserting direction and disposed for contacting the mating connector inserted into the receptacle." The connector also has at least one terminal fitting with "at least one pressing portion dimensioned for engaging and biting into portions of the housing defining

the through hole." The applicant herein has determined that this metal to plastic sliding engagement during insertion of the terminal fittings is likely to generate chips of plastic that are pushed towards the receptacle. Such chips of plastic could affect the ability of a mating connector to be seated fully in the receptacle. However, the wall of the receptacle of the connector defined by amended claim 1 includes "at least one recess adjacent the receptacle and widening at least part of the inner peripheral surfaces of the through hole" for accommodating chips generated during insertion of the pressing portions into the respective through hole.

Horchler has no pressing portions on the terminals and hence would not generate chips. The plastic latches 56 and 64 on the insulative member 22 of Horchler necessarily are configured to substantially fill the small notches in the slot 68 of the Horchler housing 66 to ensure secure retention of the insulative member 22 in the housing 66. It is submitted that Horchler would have to be completely redesigned to be brought closer to the claimed invention. The redesign would require Horchler to develop an entirely different configuration for securing the terminals in the insulative member and an entirely different configuration for securing the insulative member in the housing. No such significant redesign is suggested by Horchler, and it is believed that such a redesign would be inconsistent with the structure taught by Horchler.

Claim 2 was rejected under 35 USC 103(a) as being obvious of Horchler considered in view of Wilson et al. Wilson et al. was cited for showing a bulge on a terminal fitting. Amended claim 2 defines the bulge as being rearwardly of the housing so that the terminal fitting can be securely retained on a circuit board. The bulge recited in amended claim 2 is shown, for example, in FIG. 7 and is substantially unrelated to

structure for holding the terminal fitting in the housing. The bulge is significant, however, in that it precludes a front to rear insertion of the terminal fitting into the housing and hence creates the potential problems associated with chips lodged in the housing adjacent the rear wall of the receptacle. It is submitted that nothing in Wilson et al. suggests the features of the invention set forth in amended claim 2, and nothing in Wilson et al. overcomes the deficiencies of Horchler as described above.

Claims 1 and 5-7 were rejected under 35 USC 102(b) as being anticipated by Schwarz et al. The Examiner compares the unnumbered right-side smaller area of the receptacle of Schwarz et al. to the recess defined in original claim 1.

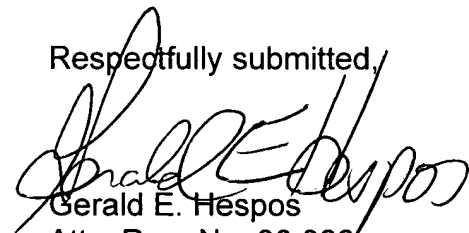
With reference to the figures shown on the cover page of Schwarz et al., the numeral 12 identifies "a contact portion 12 for electrically connecting to power sources or other electrical components" (col. 3, line 44). This contact portion 12 is shown in the cross-section on the cover of the Schwarz et al. reference as being in the right side smaller area of the receptacle that is mentioned by the Examiner in the office action. Thus, the Schwarz et al. connector has a stepped receptacle similar to the connector disclosed in the subject application and a mating connector must be inserted into both the large left area of that receptacle and the small right area of that receptacle so that the contact portion 12 of the pin 10 can achieve its above-quoted electrical connecting function. A person skilled in this art clearly would understand that the tip of the pin 10 that projects slightly into the left large area of the receptacle would not be relied upon for electrical connection, and hence the mating connector would be inserted into both the large and small areas of the stepped receptacle and substantially to the rear wall of the receptacle. The Schwarz et al. reference has no recess in the rear wall of the receptacle that contacts the mating

connector. In fact, such a recess would be entirely inconsistent with the teaching of Schwarz et al., which is to substantially avoid all gaps between the pin and the plastic header 28. Accordingly, it is submitted that the invention defined by amended claim 1 and its dependent claims is not taught or suggested by Schwarz et al.

Claim 8 was rejected under 35 USC 103(a) as being obvious over Schwarz et al. considered in view of the admitted prior art. The admitted prior art was relied upon merely for its teaching of the use of plating on a terminal fitting. The use of plating on the contact portion 12 of Schwarz et al. would not overcome the deficiencies of Schwarz et al. with respect to the claimed recess.

In view of the preceding amendments and remarks, it is submitted that the amended and new claims are directed to patentable subject matter, and allowance is solicited. The Examiner is urged to contact applicant's attorney at the number below to expedite the prosecution of this application.

Respectfully submitted,



Gerald E. Hespos

Atty. Reg. No. 30,066

Customer No. 001218

CASELLA & HESPOS LLP

274 Madison Avenue - Suite 1703

New York, NY 10016

Tel. (212) 725-2450

Fax (212) 725-2452

Date: May 20, 2004